REMARKS

This amendment is in response to the Office Action mailed July 25, 2003.

The Notice to Comply with Requirements For Patent Applications Containing Nucleotide Sequences and/or Amino Acid Sequence Disclosures has been obviated by deleting reference to specific oligonucleotide sequences on pages 17 and 18 of the Specification and by amending the claims to generalize the inventive method to biological probes and biological target samples. Reconsideration and withdrawal of this requirement is therefore requested.

The claim objection and 35 USC 112 rejection has been obviated by amendments to the claims.

The rejection of claims 1-18 and 21-25 under 35 USC 102(b), as being anticipated by Walt[(a)], the rejection of claim 19 under 35 USC 103(a) as being unpatentable over Walt [(a)] and Walt [(b)], and the rejection of claim 20 under USC 103 (a) as being unpatentable over Walt [(a)] in view of Chang are traversed. None of the Walt references discloses providing a microarray including a substrate having no preselected sites. In Walt, the microarray substrate contains "discrete individual sites appropriate for the attachment or association of beads" (page 7, lines 4-5). "At least one surface of the substrate is modified to contain individual sites for later association of microspheres" (page 7, lines 21-22). As amended, independent claims 1 and 21 define a method "providing a microarray including a substrate having no preselected sites for association with microspheres". Clearly, the claims are novel and nonobvious over the cited references.

Furthermore, none of the film forming polymers – Halifon, poly HEMA, and polyethylene glycol, would undergo sol-gel transition as gelatin does without solvent evaporation or chemical crosslinking. In contrast to the gelation process of the claimed invention, solvent evaporation causes the microspheres to cluster, this rendering the microarray unusable. In Walt, the problem is solved by precreating substrate sites, such as microwells and allowing the microspheres to be immobilized in the microwells. In contrast, the claimed method uses sol-gel transition process to immobilize the microspheres. Thus, the substrate surface does not need to be modified first to have microwells or other type sites.

Walt clearly states that the microspheres are settled in the wells before the solvent is evaporated. Immobilization is achieved by setting the microspheres in the wells prior to evaporation of the solvent and not by sol-gel transition in the medium. The microspheres may be further fixed in place by using a film-forming polymer. The material Nafion is a film-forming polymer that is insoluble in water. It is not a gelling agent.

The claims in the case are clearly allowable over the cited reference. Speedy allowance is therefore solicited.

Respectfully submitted,

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